

ATENT COOPERATION TREATY





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03SGL0103WOP	FOR FURTHER ACTION Pre	e Notification of Transmittal of International eliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/003884	International filing date (day/mont) 15 April 2003 (15.04.20)		
International Patent Classification (IPC) or n H01L 21/316, 21/311, 21/027, 2		· ·	
Applicant	SCHOTT AG		
and is transmitted to the applicant acts. 2. This REPORT consists of a total of This report is also accompaniamended and are the basis for 70.16 and Section 607 of the	ccording to Article 36. 7 sheets, including the ied by ANNEXES, i.e., sheets of the	description, claims and/or drawings which have been grectifications made before this Authority (see Rule	
3. This report contains indications relating to the following items: 1			
Date of submission of the demand	Date of co	mpletion of this report	
06 September 2003 (06.0)9.2003)	08 September 2004 (08.09.2004)	
Name and mailing address of the IPEA/EP	Authorized	d officer	
Facsimile No.	Telephone	No.	

Form PCT/IPEA/409 (cover sheet) (July 1998)

International application No.

PCT/EP2003/003884

I-	I_ Basis of the report						
1 -	1 - With regard to the elements of the international application:*						
	\boxtimes	the international application as originally filed					
	\boxtimes	the description:	•				
		pages 1-36	, as originally filed				
		pages	, filed with the demand				
		pages , filed with the letter					
	\square	the claims:					
		pages 1-53	• • • • • • • • • • • • • • • • • • • •				
	•		, as originally filed ogether with any statement under Article 19				
		pages	, filed with the demand				
		pages, filed with the letter	· · · · · · · · · · · · · · · · · · ·				
	∇						
		the drawings:					
		pages	, as originally filed				
		nages	filed with the demand				
		, mod with the letter	er of				
	L] t	the sequence listing part of the description:					
		pages	, as originally filed				
		pages	, filed with the demand				
		pages, filed with the letter	er of				
2.	me in	the language, all the elements marked above were available or furnished international application was filed, unless otherwise indicated under this item. Esse elements were available or furnished to this Authority in the following language the language of a translation furnished for the purposes of international search (under Rule 48.3(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliments of 55.3).	which is:				
3.	With prelin	th regard to any nucleotide and/or amino acid sequence disclosed in the illiminary examination was carried out on the basis of the sequence listing:	international application, the international				
		contained in the international application in written form.					
		filed together with the international application in computer readable form.					
		furnished subsequently to this Authority in written form.					
		furnished subsequently to this Authority in computer readable form.					
		The statement that the subsequently furnished written sequence listing do international application as filed has been furnished.	es not go beyond the disclosure in the				
		The statement that the information recorded in computer readable form is id been furnished.	entical to the written sequence listing has				
4.		The amendments have resulted in the cancellation of:					
	·	the description, pages					
		the claims, Nos.					
_		the drawings, sheets/fig					
5.		This report has been established as if (some of) the amendments had not been m beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)	ade, since they have been considered to go).**				
4	Replacin this	acement sheets which have been furnished to the receiving Office in response to and its report as "originally filed" and are not annexed to this report since they 70.17).	i invitation under Article 14 are referred to				
**	Any re	replacement sheet containing such amendments must be referred to under item 1 and	d annexed to this report.				
	E E						

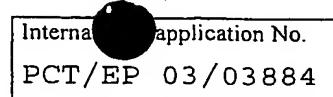
Interna. al application No.

PCT/EP2003/003884

L. The of indust	Questions whether the trially applicable have r	claimed invention appears to be novel, to involve not been examined in respect of:	an inventive step (to be non obvious),	or to be	
П	the entire international application.				
				٠	
	claims Nos.	11-36,43-52			
becaus	se:		•		
the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (spec					
		6 odojoot matter which does not require an internation	ial preliminary examination (specify):		
		•			
			•		
	•			•	
	•		•	•	
	the description, claim are so unclear that no	is or drawings (indicate particular elements below) or meaningful opinion could be formed (specify):	r said claims Nos.		
		C 1		•	
		•			
		-	-		
			•		
		•	•		
	•		•	•	
	the claims, or said cla	ims Nos.	are so inadequately suppo	orted	
by the description that no		t no meaningful opinion could be formed.			
\boxtimes	no international search	h report has been established for said claims Nos	11-36,43-52	·	
A mean sequence	ingful international proce listing to comply wi	eliminary examination cannot be carried out due to the tothe to the standard provided for in Annex C of the Admir	the failure of the nucleotide and/or amir	no acid	
sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions: the written form has not been furnished or does not comply with the standard.					
		3- 4000 not our prij wim the standa	14.	i	
	the committee said-L1-	form has not been furnished or does not comply with		, i	

Interna. application No.
PCT/EP2003/003884

rv. Lack of unity of invention
1. In response to the invitation to restrict or pay additional fees the applicant has:
restricted the claims.
paid additional fees.
paid additional fees under protest.
neither restricted nor paid additional fees.
This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
complied with.
not complied with for the following reasons:
See supplemental sheet
4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:
all parts.
the parts relating to claims Nos



Supplemental Box

∢To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: BOXES III and IV.3

BOX III

see international search report, partial search, PCT/ISA/206, further indications

BOX IV.3

see international search report, partial search, PCT/ISA/206, separate sheet

Internal application No.
PCT/EP 03/03884

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.	Statement	•	•	
	Novelty (N)	Claims	·	YES
		Claims	1-4, 10, 41, 42, 53	NO
	Inventive step (IS)	·Claims		YES
		Claims	6-9	NO
	Industrial applicability (IA)	Claims	1-10, 41, 42, 53	_ YES
		Claims	•	NO

2. Citations and explanations

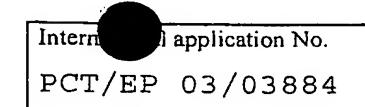
This report makes reference to the following documents:

- D1: US 2001/055864 A1 (SHI LEATHEN ET AL) 27 December 2001 (2001-12-27)
- D2: PATENT ABSTRACTS OF JAPAN Vol. 008, No. 014 (P-249),
 21 January 1984 (1984-01-21) & JP 58 172679 A (FUJI
 SHASHIN FILM KK), 11 October 1983 (1983-10-11)
- D3: PATENT ABSTRACTS OF JAPAN Vol. 2000, No. 12, 3

 January 2001 (2001-01-03) & JP 2000 241985 A

 (PIONEER ELECTRONIC CORP), 8 September 2000 (2000-09-08)
- D4: US-A-4 506 435 (PLISKIN WILLIAM A ET AL) 26 March 1985 (1985-03-26)
- D5: ANONYMOUS: 'Balanced Resistance Magnetoresistive Head Compensated against Thermal and Piezoresistive Effects. April 1975.' IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 17, No. 11, 1 April 1975 (1975-04-01), pages 3478-3480, XP002264775, New York, US
- 1. The subject matter of claims 1, 2, 4, 10, 41, 42, 43 and 53 is not novel and the requirement of PCT.

 Article 33(2) is therefore not met.
- 1.1 Document D1 is regarded as the closest prior art and



discloses:

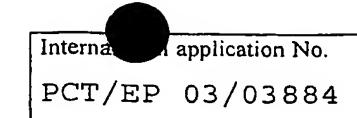
a process for the structured coating of a substrate having at least one surface to be coated, the process comprising the following steps:

the production of a first, negatively structured coating on at the least one surface (claim 27, step (a));

the deposition of at least one second layer comprising a vaporised glass (claim 32) onto the surface provided with the first coating and the at least partial removal of the first coating (claim 27, step (c)).

Moreover, D2-D5, all of which belong to entirely different technical fields, also disclose each of the technical features of claim 1. This indicates that the scope of claim 1 is too general.

- 1.2 Claim 2: the step of producing a first, negatively structured coating on the at least one surface also includes in D1 the step of exposing zones of the at least one surface to be coated (figure 4).
- Claims 4 and 10: the deposition of vaporisation glass of course always include vaporisation, and the step of depositing a second layer which includes a vaporisation glass is carried out in D1 by sputtering; see claim 32.
- 1.4 Claims 41-43: since the process for coating a substrate having at least one surface to be coated with a structured coating according to the steps in claim 1 is not novel, the resultant structured



substrate cannot be novel either. Moreover, the deposited glass layer in D1 forms part of a micro-electromechanical structure (see, for example, the abstract).

- 1.5 Claim 53: since the process for coating a substrate with a structured coating as per claim 1 is known, it is obvious that the device used to implement the process already exists.
- 2. The subject matter of claims 3 and 6-9 is not inventive and the requirement of PCT Article 33(3) is not met.
- 2.1 Claim 3: the known process can of course be implemented with all types of substrates; see also documents D2 to D5.
- 2.2 Claim 6: the vaporisation of inorganic materials is generally carried out by electron-beam vaporisation.
- 2.3 Claim 7: it is common to use a single material source during the vaporisation step, for example by sputtering, in order to keep the process as simple as possible.
- Claim 8: on the contrary, it is common to use for each component its own source (e.g. for SiO_2 a Si source and an O_2 source) when vaporising by CVD.
- 2.5 Claim 9: a person skilled in the art chooses the composition of a deposited layer as needed.